TERRA

THE NATURAL HISTORY MAGAZINE OF THE WEST

VOL. 20, NO. 1/SUMMER 1981

SPECTACULAR EVENT COMING
Urgent Information
INSIDE

About The Cover

The magnificent pre-Columbian cast gold pendant on the cover presages the most exciting event in years at the Natural History Museum, the exhibition, **SWEAT OF THE SUN, TEARS OF THE MOON: GOLD AND EMERALD TREASURES OF COLOMBIA.** This special shorter issue of TERRA is arriving in your mail more than two months early to acquaint you with the tremendous scope of the show and to give you an opportunity to make your ticket reservations now and order any extra tickets beyond the four to which your membership entitles you. The catalog is being published by TERRA and you will receive it *free* as a major membership bonus. It is a ninety-six page beauty, filled with scholarly articles and containing forty-eight pages of stunning color, photographed by Harold and Erica Van Pelt. The cover pendant represents a deity wearing earplugs, nose ornament, and large headdress with two birds and plumes. Tairona culture, from the Sierra Nevada region. Size: 13.3 x 12.7 x 5.1 cm. Collection: Natural History Museum of Los Angeles County.

Renowned designer Saul Bass has created a poster of the Colombian exhibit which is on sale at the Museum for $5.00.

Curators & Collections

Photo: Julian Donahue

Curators Lead Alliance Rafting Trips In Grand Canyon

Three Museum curators have served as interpretive leaders on the Alliance's first two rafting trips to one of the most spectacular geological marvels on earth—the Grand Canyon of the Colorado River in Arizona. Geologist Dr. Anthony Kampf and entomologist Julian P. Donahue led the first trip in September, 1980, while Donahue and botanist Robert Gustafson led the second trip in April, 1981.

After an overnight train ride from Los Angeles to Kingman, Arizona, the rafters are met by Steve Glass of Keltic Tours. Following breakfast, the adventurers transfer their gear to waterproof bags, then board a bus for the river. On the way, they pass through dense stands of creosote bush, Joshua trees, and other vegetation characteristic of the Mojave and Sonoran deserts, while watching for golden eagles and ravens in the early morning light.

The next four days and three nights are spent on the river in the lower forty–fifty miles of the Grand Canyon. Towering above the river is a mile-high stack of sedimentary rocks, lying on Pre-Cambrian riverside rock 1.5 billion years old. The effect is awe-inspiring. Gradually, with the aid of the leaders and the boatmen, the rafters begin to understand how this phenomenon came to be. Hour by hour, the geological maze becomes more comprehensible as the floaters sort out the sedimentary layers of sandstone, limestone, and shale; faults, rockslides, and differential weathering; lava flows and travertine deposits. And finally, the Great Unconformity!

The Museum curators add a new dimension to this towering wilderness as they probe the unprepossessing biological secrets of desert life in this land of rock. Brightly hued flowers, lizards, tree frogs, birds, mice, and lizards all reveal themselves, in the appropriate season, to the careful observer.

Two nights are spent ashore, sleeping under more stars than most people remember, while the last night is spent floating fifteen miles or so in quiet serenity broken only by the slap of beaver tails and the quadruple hoots of great-horned owls (and a snore or two). The next morning, having lost the current on the upper end of Lake Mead, motors propel the rafts to the take-out point at Pierce's Ferry.

Rounding out the refreshing rafting experience are pleasant conviviality and gourmet meals (one rafter, surveying the ample food spread before him, commented that it would be a "five-pound trip"—and he was right!).

The trips, limited to thirty participants, have proven to be an almost instant sellout, with long waiting lists. The next rafting trip, already sold out, is scheduled for September, 1981, with more trips in the offing for 1982.

TERRA

THE MEMBERS MAGAZINE OF
THE NATURAL HISTORY MUSEUM ALLIANCE
OF LOS ANGELES COUNTY
VOL. 20, NO. 1, SUMMER 1981

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EDITOR
Dorothy H. Seligman

ASSOCIATE EDITORS
Kilbee Brittain/Harry Pack

CONTRIBUTING EDITORS
William A. Emboden Jr./Gretchen Sibley/Edward Wilson

DESIGN DIRECTORS
Harry J. Pack, Armin Krumbach

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Sage Belt/Jane Dart/Hailey Dart/Jeanne Duque/Mary P. Goodwin/Glenn Hiatt/Pat Herbert/Hannah Kully/William B. Lee/Richard Lipscomb/Genie Paul/Ralph Schreiber/Jean Stone/Robert Spangenberg/Donna Tuttle/Elizabeth Wright

MUSEUM PHOTOGRAPHERS
Dick Meier/John DeLeon

STAFF ILLUSTRATORS
Mary Butler/Joseph Nakanishi

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SWEAT OF THE SUN, TEARS OF THE MOON:

GOLD AND EMERALD TREASURES OF COLOMBIA TO BE EXHIBITED AT THE MUSEUM, JULY 4 THROUGH SEPTEMBER 6.

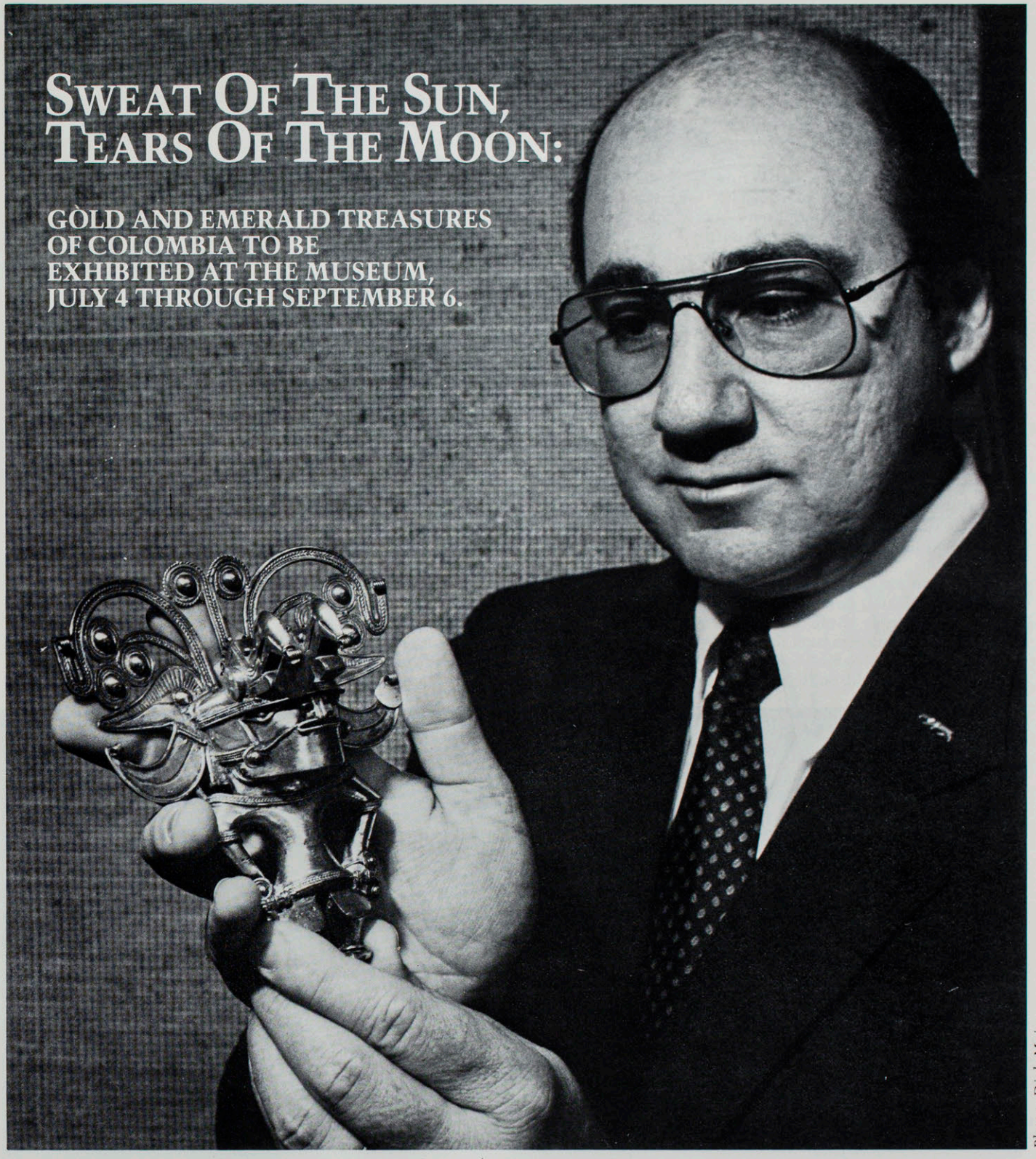


Photo: Dick Meier

by DR. WILLIAM B. LEE, Director

This summer, after two years of planning, the Natural History Museum will bring together Colombia's treasures. Nearly all of the world's major emerald crystals and a collection of more than six hundred gold artifacts will be displayed in the largest exhibition of gold and emeralds ever mounted.

The exhibit includes more than five hundred gold objects on loan from the Museo del Oro in Bogotá, five huge uncut emerald crystals from the vaults of the Banco de la República in Bogotá and many of the most valuable pre-Columbian gold pieces and privately collected emeralds in the world.

A great many of the pieces to be shown here have never been viewed publicly before. The five uncut Banco de la República emerald crystals from the famous Muzo Mine, for example, had been housed in the bank's vaults unknown to the world until March, 1981, when your director and two gemologists from Los Angeles were allowed to inspect them and arrange for the emeralds to be included in the exhibit.

Another emerald we will display includes the fabulous "Mogul," a 218 carat Colombian emerald mined from the Muzo Mine and taken to India where it was carved on front and back by craftsmen during the reign of Mogul Emperor

Aurangzeb in the seventeenth century.

Emerald jewelry includes the Inquisition Necklace, a three-hundred-year-old Spanish necklace set with Colombian emeralds and more than 360 diamonds, on loan from the Smithsonian Institution.

Additional emerald crystals and jewelry have been loaned to the exhibit from the Seiichi Kawai and Willis F. Bronkie emerald companies in Bogotá.

A wide variety of extraordinary gold pieces will be on display, including masks, pendants, earplugs, nose ornaments, lime flasks, and a variety of other ceremonial objects.

There is a mystique which surrounds pre-Columbian gold and emerald treasures. We have all read of the horrors of the Spanish conquest which destroyed native Indian cultures as it plundered their sacred treasures. And we know from chronicles of the times, four hundred years ago, that the Indians of the Andes had an explanation for the abundance of glimmering emeralds and rich veins of gold which they dug from the earth. The gold was the sweat of the sun and the emeralds were the tears of the moon goddess, Fura.

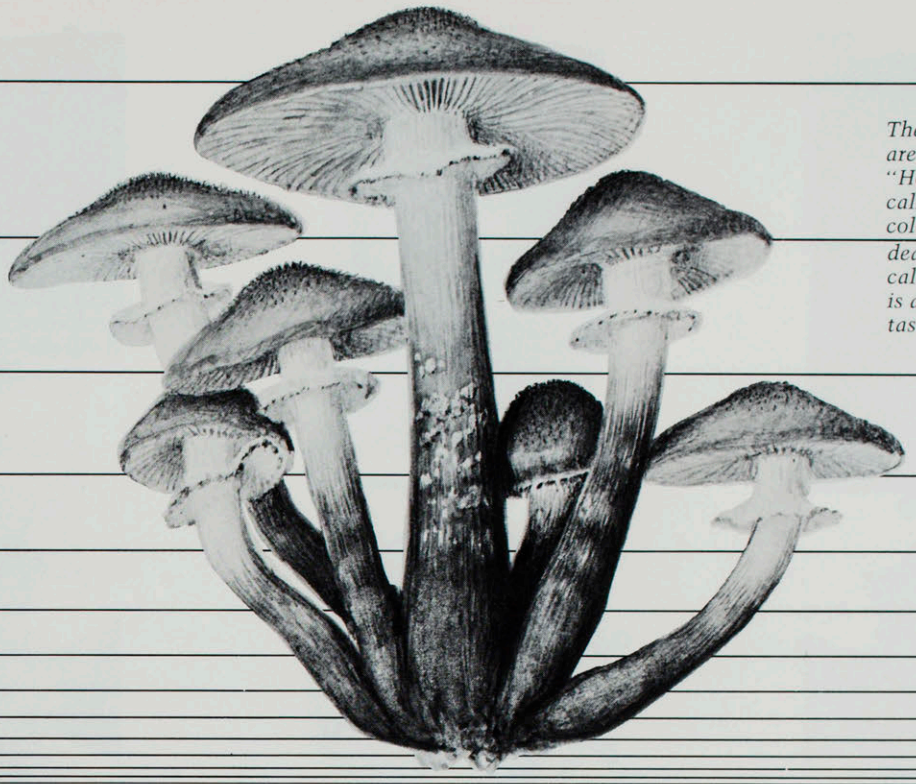
The Indians created beautiful religious objects, ornaments, and useful utensils and weapons from these natural treasures. Spanish explorers took them away.

Gold exhibits have not been uncommon around the world. But this is the first time that a collection of gold *and* emeralds have been displayed together in an effort to emphasize their equal importance in the mythic culture of the Indians of Colombia.

The Museum anticipates enormous interest in the exhibit. For this reason we have taken extraordinary measures to ensure that members of the Museum Alliance have preferred treatment. Each member will be offered four free tickets for specified times, and will be sent a free members' bonus catalog. This package is worth a dollar more than your $25 membership, for tickets are to be sold for $4 each, including Museum entrance and acoustiguide tour, and the catalog will be sold for $10. Tickets will be on sale via Ticketron and through the Museum as well. Details and ticket order forms are on page 15. We urge you to take immediate advantage of it while there is still time to make arrangements for the day of your choice.

The Natural History Museum is grateful to Clara Muñoz de Yust, consul of Colombia, for helping to make this extraordinary event possible.

Bell, shaped like a human head. Cast gold. The head-dress incorporates two bird heads. Sinú Region. Height 4.7 cm. Museo del Oro, Bogotá.



The clustered mushrooms are Armillariella mellea *"Honey Mushroom" so-called because of honey-colored cap—common on dead or dying trees. Also called oak-root fungus as it is a destructive parasite. A tasty* edible.

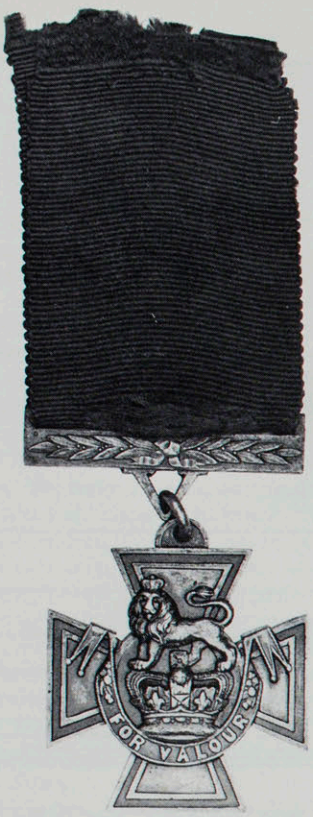
MUSHROOMS AND TOADSTOOLS AT THE MUSEUM

"Mushrooms and Toadstools," an exhibit written by Botany Research Associate Florence Nishida, presents edible and poisonous species of southern California through the beautiful watercolors of Louis C. C. Krieger. The paintings, on loan from the University of Michigan Herbarium, will be on exhibit through July.

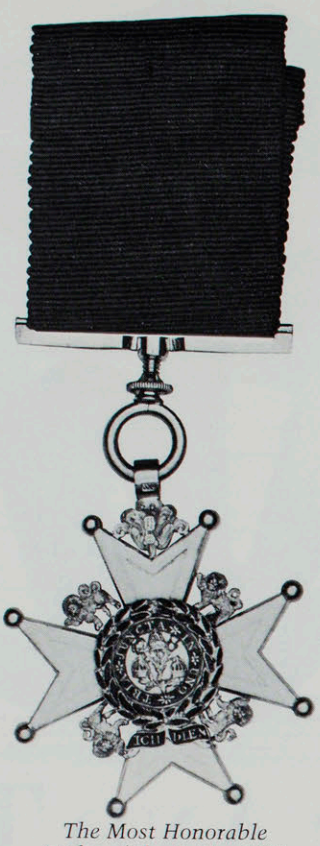
Mushrooms took center stage in the upstairs North American Mammal hall on Thursday evening, February 5, 1981 as nearly 200 people gathered to hear Orson K. Miller, Jr., Professor of Mycology from Virginia and author of *Mushrooms of North America,* the best known field guide today, speak on "Aspects of Fungal Ecology," explaining the relationships between mushrooms and higher plants and animals. The four-day conference, LAMS FORAY 1981, planned and coordinated by Florence Nishida, President of the Los Angeles Mycological Society who sponsored the annual event, and hosted by Don R. Reynolds, curator of Botany at the Natural History Museum, brought together amateurs and professional mycologists in a rewarding exchange through a set of lectures, forays, labs, and social functions. Specialists from all over the nation converged upon southern California to lead mushroom walks, giving instruction in the field, and returning to Cal State L.A. (where co-host Daniel Mahoney, Professor of Biology, provided well-staffed facilities), to direct mushroom identification labs and to give lectures in the evenings.

The solitary mushroom is Chlorophyllum molybdites, *a common summer mushroom (toadstool) in Los Angeles parks, lawns, golf courses. Very large, grows gregariously—but has characteristic* green *spore print and turns gills* green. *Most unusual for a mushroom.* Poisonous.

Dr. Howard Bigelow of Massachusetts and Dr. Walter Sundberg of Illinois, both grateful to acknowledge their escape from the wintry East, helped demystify the genera *Clitocybe* and *Lepiota.* Dr. Robert Gilbertson of Tucson described Arizona fungi, many of which are wood-decomposers, and emphasized the need to permit downed wood to rot, so that nutrients and water-holding capabilities of the soil are maintained for future generations of trees. Richard Kerrigan of San Francisco discussed the common genus, *Agaricus,* and its puzzling California species. Gary Lincoff, NAMA president, entertained and enlightened with anecdotes about toxic and hallucinogenic species. Kit Scates' down-to-earth beginners' course was an overwhelming success, well-attended by half the participants. A culinary session topped the events by treating the crowd to the "golden chanterelle" prepared with butter, flair, and some hilarity by Bill Breen.



The Victoria Cross (v.c.)



The Most Honorable Order of the Bath—1725 Neck Badge Military

The New Zealand Cross

BRITISH ORDERS, DECORATIONS, AND MEDALS

in the Robert B. Honeyman, Jr. Collection

by LOWELL HERBRANDSON

The Museum's recently published *British Orders, Decorations, and Medals in the Robert B. Honeyman, Jr., Collection* is a catalogue and celebration of the British portion of this extraordinary collection of over three thousand orders, decorations, medals, and insignia. Mr. Honeyman began to gather these materials in the early 1930s and donated the collection to the Museum in 1954. The book was prepared for publication by David Workman, a Los Angeles attorney who also follows an avocation in British medallic history.

Often times, the differences between "medals" "decorations" and "orders" become confusing. Medals are given for service, or for "just being there"; Example: good conduct, marksmanship, or campaign medals. Decorations are given for individual acts of heroism; Example: Victoria Cross, or the Medal of Honor. Orders today are given for civil and military rewards to men and women of all walks of life. Confusion develops when some decorations are referred to as medals, or might include the word "medal" as part of their name; Example: the Congressional Medal of Honor is a decoration.

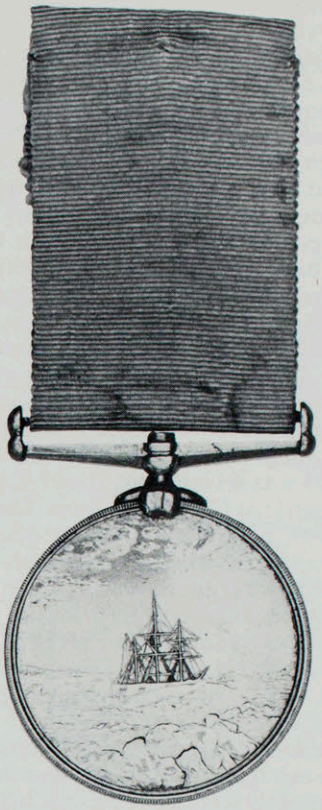
Orders, traditionally reserved for men of noble birth, developed vows and regulations and various rituals. European orders are more than a thousand years old. Their origins can be traced to the monastic orders of the medieval church. Later military orders were created during the Crusades against the Moslems in the Middle East.

The fourteenth century saw new types of orders developed throughout Europe. These "royal orders" were devoted to chivalry and were created by the reigning monarchs in a number of states. They were intended to increase the prestige and power of the king by surrounding him with respected attendants. Once selected by the sovereign, members were admitted to ceremonies of pomp, pageantry, and circumstance.

Perhaps the most famous of all the British orders of this sort is the Most Noble Order of the Garter, which was established by Edward III in 1348. Besides the chain worn around the neck and a garter worn just below the knee, there was also a badge, known as the "George." The Order comprised twenty-five men called Christian Knight Companions, The Prince of Wales and their liege, the sovereign. Knighthood is for life.

Generally, each order had a patron saint and a chapel for private devotion. The Order of the Garter is unlike most royal orders because commoners have been admitted during its six-hundred-year history. Still, it is the preeminent order of Great Britain, though the orders of the Thistle and Saint Patrick, also royal orders of chivalry, are very prestigious.

Khedive's Sudan Medal—1896–1908



Arctic, 1875/76

London County Council's Medal for Bravery (London Fire Brigade)

Conferment also granted status of knighthood to the honoree.

Not all orders bestow knighthood, however. Six other orders in Britain can also grant knighthood, but unlike the Order of the Garter, which has only one class of membership, for these orders one must be admitted to a certain class or grade to qualify for knighthood. For example, the Most Honourable Order of the Bath, founded in 1725, has three classes: Knight Grand Cross (G.C.B.), Knight Commander (K.C.B.), and Companion (C.B.). The first two classes confer knighthood. The Order of the Bath is further divided into Civil and Military Divisions. The G.C.B. is considered the highest British military honour.

Knighthood confers the title of "Sir" or "Dame" to be affixed before one's name, and the initials of the order or class within the order after. Winston Churchill considered his membership in the Order of the Garter the greatest honor of his career. The proper way to write the great leader's name is Sir Winston Churchill, K.G.

Besides royal orders of chivalry, there are other orders in Britain called orders of merit. These orders are made up of individuals who have made their mark in the arts, sciences, humanities, military service, or through general service to the nation. Most people are first admitted to the lowest class within a particular order and then promoted to higher classes upon later recommendation. These orders of merit also have badges or stars or some other insignia to be worn as a visible sign of membership.

Decorations, those awards given for deeds "above and beyond the call of duty," are headed by the Victoria Cross, probably the most prestigious military award in the world. Queen Victoria approved this decoration in 1856 as an award of valor for special bravery in the Crimean War. It is the first decoration ever presented to both officers and enlisted men. The Victoria Cross is made from Russian cannon captured during the Crimean War. The Victoria Cross has been awarded to 1,347 individuals, 300 of these posthumously. Eight individuals have had their decorations rescinded due to various crimes. The Victoria Cross is awarded by the sovereign, and the award is accompanied by a pension. Each decoration has the recipient's name and the date of award engraved on the piece. The Honeyman Collection contains two of these rare decorations.

In 1866 the Albert Medal was established as a civilian equivalent to the Victoria Cross. Queen Victoria awarded the medal to those who risked their lives trying to save others. This decoration has since been superseded by the George Medal and the George Cross, instituted by King George VI in 1940.

A rare decoration, the Conspicious Gallantry Medal (1855), is represented by two examples in the Honeyman Collection. This decoration was given during the Crimean War only to enlisted men of the Navy and Royal Marines. The Royal Red Cross decoration was instituted in 1883 for women in the armed forces.

Due to the enormous size of the British Empire, many decorations were created for specific areas, two examples of which are the Order of British India (1837) and the Indian Order of Merit (1837). The Honeyman Collection includes a number of these regional decorations, such as the Indian Distinguished Service Medal (1907) and a British North Borneo Bravery Cross (1897). Many lesser decorations exist, such as the Distinguished Service Order and Medal, the Distinguished Service Cross, and the Military Cross. And there are still many others which acknowledge the valor and gallantry of the British fighting man. The Honeyman Collection includes a number of these, such as the Distinguished Service and the Distinguished Flying Medal, both from World War I.

The pièce de resistance of the Honeyman Collection is the New Zealand Cross, one of the regional decorations awarded for military valor. In 1869, settlers of New Zealand were engaged in the Maori Wars, with native uprisings finally put down by local constables. The

British colonial governor wanted to reward these men in the traditional manner with a decoration for valor. But the constables were neither British soldiers nor subordinate to British officers, and hence did not qualify for existing British decorations. So the governor simply created his own decoration based on the coveted Victoria Cross. The New Zealand Cross was made and distributed, and the British government was then notified of the fact. Because of his unauthorized awarding of decorations, the governor was nearly ousted from office, but later forgiven on condition that he never repeat his action. Only twenty-three of these decorations were presented. Constable Solomon Black was the third recipient of the New Zealand Cross, and his decoration is now part of the Museum's Honeyman Collection.

As with orders, all decorations carry initials that stand as abbreviations, and may be appended to one's last name. An example of this honored practice might be: Sir John Doe, V.C., K.G., G.B.C., O.B.E., D.S.C. All initials are listed in order of precedence, that is, importance of honor, so that the highest award is listed first. This rigid hierarchy is maintained to assure absolute propriety and dignity.

The largest group of materials in the collection consists of medals. Good conduct, long service, marksmanship—all of these can merit a medal. Within this large group, the principal portion is comprised of campaign medals. These serve to indicate that the recipient was present at a particular battle, and the bearer of such a medal wears it as a record of his battle or campaign service.

The earliest British war medals that we know of are the Elizabethan Naval Medals (1588). Three different types of these exist, but little is known about them. Apparently, they were given to commanders of ships which vanquished the Spanish Armada in 1588. A fine example of one of these rare pieces is in the collection. The first actual campaign medal given to both officers and enlisted men was the Dunbar Medal (1650), a specimen of which is in the collection. The medal celebrates the victory of Oliver Cromwell's troops at Dunbar over a larger Royalist army.

There are many army and navy campaign medals that were awarded during the turbulent period that spans the years 1793 to 1840. Interestingly enough, none of these medals was issued at the time of the battles they were cast to commemorate, but instead were presented by Queen Victoria some thirty years later. At the time of the wars, the prevailing public attitude discouraged such medals. But during Victoria's time, the public had developed a broader appreciation of pomp and sense of honor for things military, and hence the medals were granted after the fact.

The collection's army campaign medals are known collectively as the Military General Service Medals (M.G.S.M.). Although these date from 1793, these medals were not actually issued, so the medals and bars that exist date from 1801 to 1814. Each battle is represented by a small rectangular metal bar, on which is engraved the name of the particular battle in which the soldier saw action. Each additional battle merited an additional bar. Twenty-nine battles were fought during this period, and the Honeyman Collection has examples from each battle.

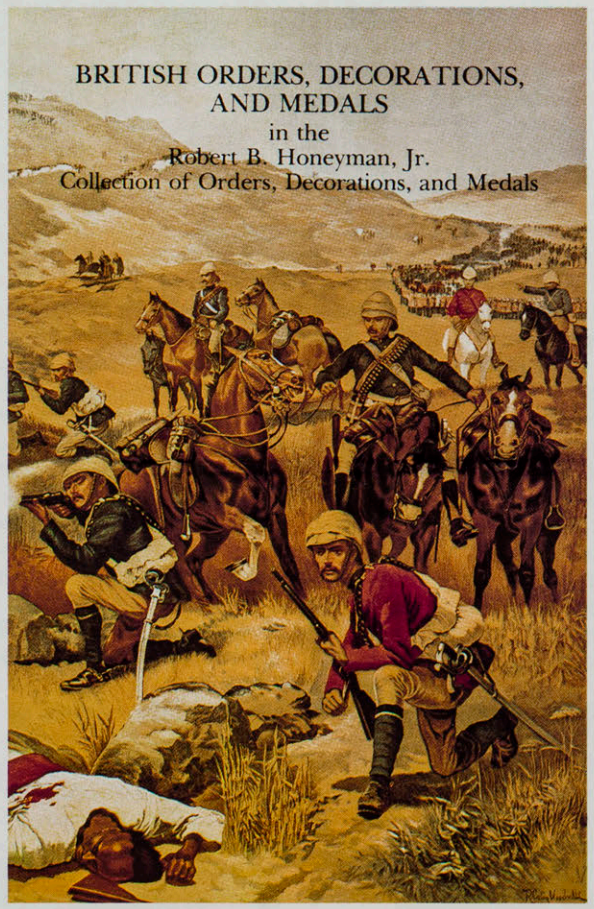
The M.G.S.M. were not limited to European battles. Three of the rarest medals in the collection are from North American campaigns waged during the War of 1812 with the United States. In an expedition of July, 1812, a British force took Fort Detroit. In 1814, the United States was driven from Lower Canada at the battle at Chrystler's Farm. These two battles, plus the Canadian defense at Chateauguay, were honored with medals and bars that are now represented in the Honeyman Collection.

The Naval counterpart of the M.G.S.M. is the Naval General Service Medal (N.G.S.M.). This medal covers the period from 1801 to 1840. Due to the large number of engagements and elapsed time between the battles fought and the dates the medals were awarded, not many bars exist for the N.G.S.M. Mr. Honeyman was particularly interested in these naval medals and collected over one hundred medals and bars. Bars for some engagements do not exist, as men eligible did not appear to receive the bars. Just one of the flaws in a system that awarded medals so many years after a campaign or battle.

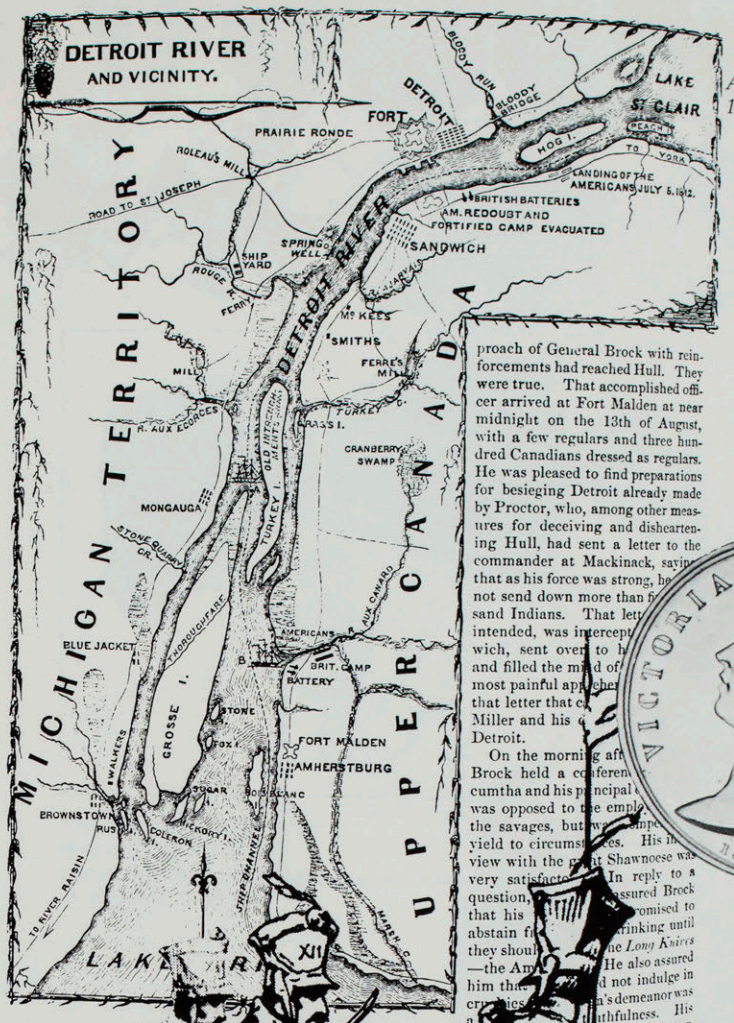
Besides the army and navy, other military forces in the Empire were also awarded campaign medals. In the eighteenth century the Honourable East India Company controlled and ruled India as its own possession. In order to establish control the company fought many battles against native rulers and other foreign powers, especially France. The East India Company awarded campaign medals to its native Bengal troops.

Early in the 1800s British regulars were active in India, bolstering the forces of the East India Company. But while the Bengal troops received campaign medals for their efforts, British regulars received no such recognition. At the urging of Queen Victoria, however, campaign medals were struck and awarded in 1851. Of the total seventeen bars awarded, the Honeyman Collection contains sixteen bars. These Army of India medals comprise a unique group.

The collection also contains representative medals from such places as Canada, China, Africa, New Zealand, Afghanistan, and India. Medals and bars from famous engagements like the Boxer Rebellion in China (1900), the taking of Khartoum, the charge of the Light Brigade in the Crimean War, and the Zulu Wars in



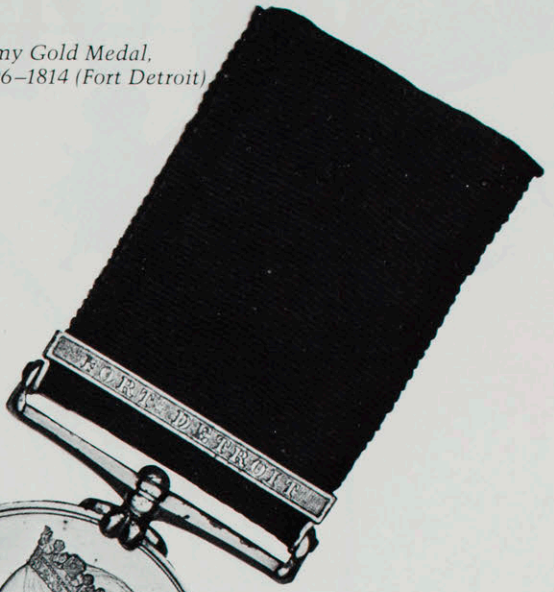
British Orders, Decorations, and Medals in the Robert B. Honeyman, Jr., Collections, David Andrew Workman, Compiler. Natural History Museum of Los Angeles County, hardcover, $7.50; soft cover, $5.00.



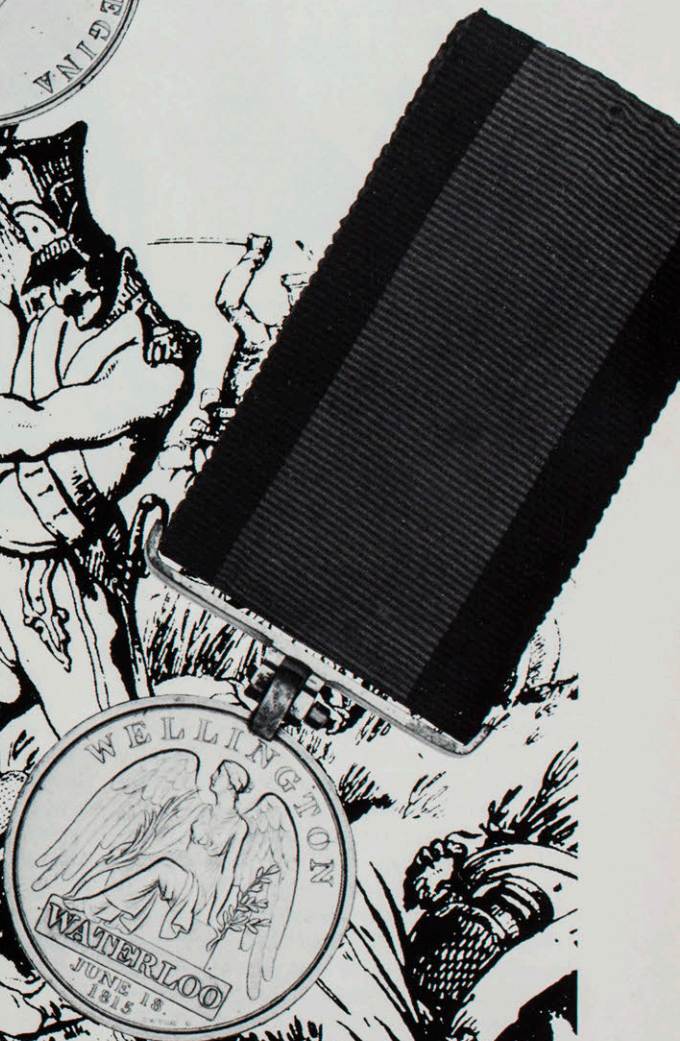
proach of General Brock with reinforcements had reached Hull. They were true. That accomplished officer arrived at Fort Malden at near midnight on the 13th of August, with a few regulars and three hundred Canadians dressed as regulars. He was pleased to find preparations for besieging Detroit already made by Proctor, who, among other measures for deceiving and disheartening Hull, had sent a letter to the commander at Mackinack, saying that as his force was strong, he not send down more than fi sand Indians. That lett intended, was intercep wich, sent over to h and filled the mind of most painful appr[e]hen that letter that c[a]me Miller and his c[o]mpanions Detroit.

On the morning aft[er] Brock held a conferen[ce] cumtha and his principal [chiefs] was opposed to the emplo[yment] the savages, but was [finally] yield to circumst[ances]. His in[terview] view with the great Shawnoese was very satisfacto[ry]. In reply to a question, [he] assured Brock that his [people] promised to abstain fr[om] drinking until they shoul[d] the *Long Knives* —the Am[ericans]. He also assured him tha[t] d not indulge in cr[uelties]. [Tecumtha]'s demeanor was a[ll] thfulness. His

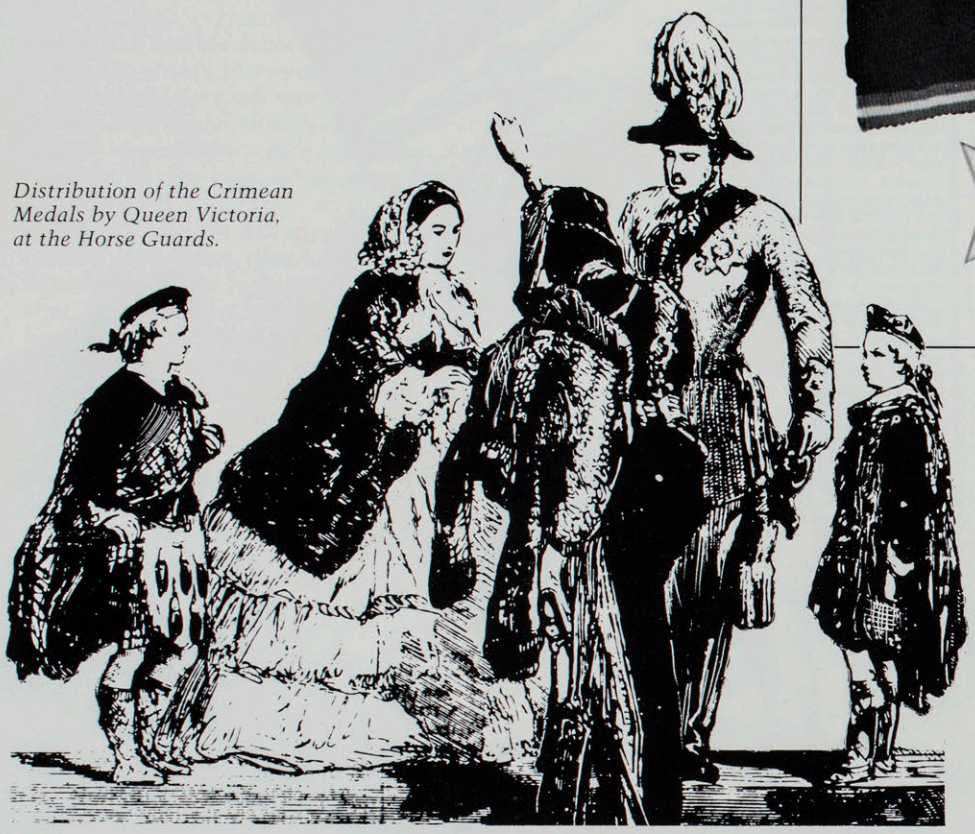
Army Gold Medal, 1806–1814 (Fort Detroit)



Waterloo Medal, 1815



Single Medal: Commander's Neck Badge Awards received by Commander R. T. Down, R.N.



Distribution of the Crimean Medals by Queen Victoria, at the Horse Guards.

South Africa are all present in the Honeyman Collection.

Besides these, medals from many of the lesser known battles are also here. The North West Canada Medal (1885) commemorates the second "Riel Rebellion" in Northwest Canada. For nine days a new mixed-blood and Indian republic existed, until Canadian forces defeated the rebels at Batoche in Saskatchewan.

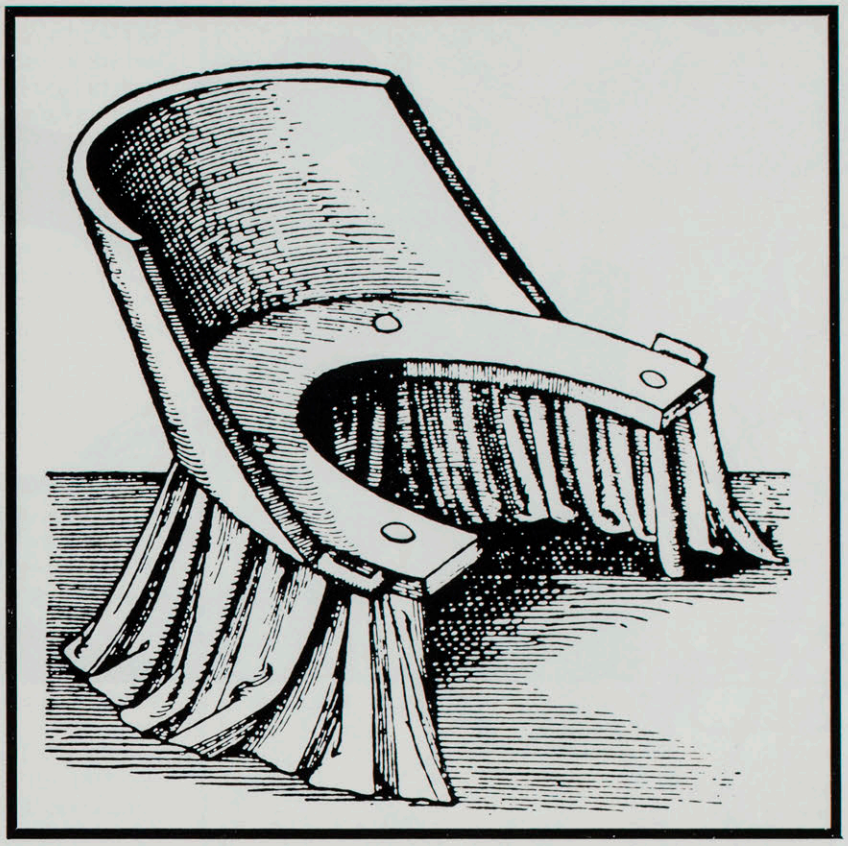
Besides the campaign medals, there are also examples of other types of service, such as the British Army Best Shot Medal. Less than twenty of these were issued between 1867 and 1883. Many good conduct medals and long service medals are included. One medal in the collection was awarded to a pastry cook in Queen Victoria's service for thirty-two faithful years. Medals for life saving and fire fighting are also in the collection.

An unusual and rare group of medals was awarded to participants in several British polar expenditions, including those from 1818–1855, 1875–1876, 1907–1911, and Scott's ill-fated expedition of 1910.

Throughout the world, nations in varying degree have sought to honor individuals and so develop a tradition of service and establish a system for its recognition. The British Empire, more than any other political entity, has given such awards an unusually high social and cultural priority. Her glorious heritage and renowned sense of tradition embodied by these orders, decorations, and medals spanning four centuries are reflected in the remarkable Honeyman Collection.

Lowell Herbrandson is assistant librarian at the Natural History Museum. He is especially interested in the history of Los Angeles breweries and music. He plays the organ, piano, oboe, English horn, clarinet, and bassoon.

The History Division currently has an exhibit in the staircase landing at the south end of the ground floor. Featured are such significant pieces as a Victoria Cross, the New Zealand Cross, and campaign medals and other awards.



A German birth chair of the sixteenth century.

THE Birthing Stool

by ELIZABETH J. WRIGHT

Ask any number of Americans what a birthing stool is and the answer will undoubtedly be, "a *what?*" But not so Susan and Robert Snyder of Santa Barbara, California. Their recourse to a time-honored but neglected accouterment to *accouchement* resulted in a highly satisfactory delivery of daughter Elizabeth Michele at the Santa Barbara Cottage Hospital October 2, 1979.

The resurgence of natural childbirth methods leads to investigation as to how Homo sapiens effected their entry into this world; primitives did it, medievals did it, even the farthest-out moderns do it. But how and in what manner? The cultural answers are fascinating.

Early man—change that to woman—utilized in birthing two of nature's true handmaidens — the squatting position and the law of gravity.

Earliest evidence comes from several ancient Egyptian medical papyri as well as from stone reliefs in the Birth House at Luxor, dated around 1450 B.C. Consisting of two stones, this early version of a birthing stool gave support to the woman while utilizing gravity.

It is suggested by Dr. Martha S. Householder in *A Historical Perspective on the Obstetric Chair* that this may have been the type of seat to which Moses referred in the Book of Exodus as the King of Egypt says: "When ye do the office of midwife to the Hebrew women, and see them upon the stools; if it be a son then ye shall kill him; but if it be a daughter, then she shall live." Dr. Householder eruditely observes "that the word for stool may be translated stone, a more likely meaning in a country lacking trees."

Dr. Palmer Findley in *The Story of Childbirth* provides illustrations of an African woman utilizing a crude tree stump as a birthing stool, while a Niam-Niam woman seeks delivery upon an equally crude stool to accompaniment provided by local musicians.

In striking contrast is the ornate birthing stool or *ko* described by Nancy Beth Swartz in her thesis, "The Arts of the Manbilla; a Survey." The Mambilla people utilized a "delivery" stool embellished with many figures of women in childbirth. The stool was kept in the compound of a hamlet elder to be brought out when a woman was having a difficult delivery. Believing that such difficulty sprang from a past infidelity she was given the opportunity to confess while squatting on the stool and if she did so the nativity would proceed with help from her female friends and kin. By being placed on this image of the female collectivity she was encouraged to confess and re-enter the female community. If she was innocent, or failed to confess, she was left alone to her fate.

The development of deliberately-fashioned stools or chairs commonly used in birthing, is believed to have come about as a substitute for the lap of a helper. The

These two hieroglyphs, from the earliest days of Egypt, mean 'to give birth.' The Egyptian women, like the women of most early peoples, adopted a squatting rather than recumbent position during labor.

A crude birth stool on the bank of a river serves this native Niam-Niam woman in delivery.

In addition to a simple stool, support sticks are used by this African woman.

A rare pottery representation of ancient Mohican birthing practices.

use of such a helper spans many centuries and cultures as may be gathered from the following:

The Mohicas, whose empire began to flourish about 500 B.C. and continued for centuries, left an unmatched legacy of their medical problems and practices in pottery.

A Mohican pottery container, unique in its representation of childbirth and beginning delivery, leaves an explicit record of the birthing practices of these people. A woman is shown in parturition. Behind her sits a helper or midwife who endeavors to ease the delivery by pressure and massage. The child's head has emerged and is being held between the hands of a second midwife or healer who kneels in front of the woman in labor.

In Genesis XXX3, Rachel requests of Jacob, "Behold my maid Bilhah, go in unto her, and she shall bear upon my knees that I may also have children by her."

Another early evidence of delivery in the lap is found in a marble group dated 400 B.C. in Cypress.

Historical evidence has it that a man is actually responsible for the creation of the first wooden birthing stool. A carpenter residing in Thuringen had created a demand for his services in easing the pain of labor by holding the women in his lap. Unfortunately the records are tantalizingly mute as to why he relinquished this popular privilege and decided to create a shaped wooden stool as a substitute.

Obviously the stool caught on for Galen (130–200 A.D.) writes of it as does Soranus of Ephesus. Before long its acceptance would have warmed the heart of the most rapacious of today's entrepreneurs. Brought by Greek physicians to the Romans, from Rome it was taken over the Alps to be used in France and Germany throughout the Middle Ages.

However, the man in these areas, unlike the Greeks, were excluded from the birth chamber. Attendance at deliveries was considered beneath the dignity of the physician. To make matters worse, during the medieval period midwifery was "in the hands of the lowest and most ignorant of females."

Fortunately for the propagation of western European's Homosapien population, competent midwifery was eventually elevated to an art by the publishing of Eucharius Röslin's *Der Swangern Frauen und Hebammen Rosengarten* in Frankfurt in 1513. Written in the vernacular, it was the first printed text in the field and consequently served to promote a more dignified model of midwifely conduct.

The English translation, published in 1532 and dedicated to King Henry VIII's fifth wife, Katherine Howard, was the first such publication to appear in English.

During the time of its travels the stool developed new and interesting characteristics and emerged as a type of chair. Both the German and English works of Röslin contain the picture of a birthing chair with a sloping back to allow a semi-recumbent position.

It is an interesting observation that the

use of the birthing stool or chair is tightly entwined with the practice of midwifery.

The radical shift began when the French started to accept the use of the bed in delivery. This can be attributed to Ambrose Paré, although Mariceau, the leading French obstetrician of the latter half of the 17th century, did most to popularize the method. French male medical students trained in midwifery developed into the role of obstetricians.

However, the daring French and their seemingly erotic ideas met with strong opposition from Holland and other northern European countries where the obstetric chair was much in vogue along with the midwife. The Dutch obstetrician, Henry van Deventer, later known as the "Father of Modern Midwifery," even designed a splendid new chair and brilliantly publicized its unassailable advantages in opposition to the upstart Mariceau's practice of delivery in a bed.

An invention by the Chamberlain family in the 17th century dealt a heavy blow to the female midwives and the symbolic tool of their trade, the birthing stool or chair. This new invention was the obstetric forceps.

As a result delivery in bed was adopted in England by the middle of the 18th century. However Germany, still obstinately loyal to the obstetric chair in the late 18th and early 19th centuries, countered with innovative improvements for the chair such as pillows, padding, hand grips and foot rests, reclining backs and ascending seats.

As to the United States, by the early 19th century the obstetric chair had met the same fate as it had a century earlier in England and France.

The scientific developments in medicine which occurred during the latter half of the 19th century doubtless served to reinforce the use of the horizontal position for delivery. With the advent of various anesthesia parturition was no longer the domain of the female, as even the parturient woman ceased to have an active function.

With the recent interest in natural childbirth methods a revival of the birthing stool or chair, utilizing the acceptance of gravity as a major assistant, could well be the ultimate aid in "natural" childbirth.

This has caused a philosophical dilemma for some modern parents-to-be. Of late, suspicion that scientific childbirth methods are primarily for the convenience of the physician, has been voiced rather stridently. And as a result, at least in Santa Barbara, the birthing stool may be quietly poised in the wings awaiting its cue to once again take center stage in the great drama of human delivery.

Elizabeth Wright is a free-lance writer for radio, television, and magazines.

The title page illustration from Röslin's famous book for midwives.

After Elizabeth Wright had submitted her article on birthing stools to TERRA, an article about a modern version of the stool created by Century Manufacturing Co. of Aurora, Neb. appeared in both the New York Times (2/2/81), and Newsweek (3/2/81). Constructed of high-impact plastic, with molded knee braces and adjustable footrests, it is motorized to be raised, lowered or tilted to suit the doctor's needs.

Mrs. Wright wrote to Dr. Warner Nash of New York City's Lenox Hill Hospital, who was quoted in the article as saying that "because of the structure of the human pelvis, delivering a baby is best and most naturally done in a sitting or squatting position." He added that the force of gravity augments the woman's natural uterine contractions, usually reducing time needed for delivery.

"I am happy to confirm the information in the articles...," Dr. Nash answered Mrs. Wright. "Our experience so far has been excellent for patient comfort and speed of the second stage of labor." And he added, "I'd appreciate receiving a copy of your TERRA article."

FUTURE STOCK

by W. STUART RITTER

George V. and Phila M. Caldwell recently established the Natural History Museum Foundation's first Charitable Remainder Trust with a substantial gift of securities. Legal work done for the Caldwell Trust has created a model available for others to use.

Over the years, TERRA readers have become acquainted with many of the Natural History Museum's diverse pursuits. Through these pages, we have accompanied Museum scientists on wide-ranging expeditions, explored past eras and charted new frontiers. In its educational, scientific and cultural roles, the Museum has enriched our lives.

Recognizing the Museum's contribution to our knowledge and understanding of the world, it is appropriate to discuss the need for a reciprocal contribution: financial support for the Natural History Museum of Los Angeles County. It is clear that government at all levels will be restricting the share of its resources devoted to cultural endeavors in the years to come. Science and the Arts will be forced to rely more heavily upon the private sector, and many who have never seen themselves as benefactors may need to take on this new role.

Simply stated, institutions like our museum must begin to replace tax dollars with tax-deductible dollars. One of the most effective ways to benefit our institution is to show how supporting its work can benefit *you* as well. What follows is a brief outline of some taxwise alternatives for donors in most income brackets.

CHARITABLE GIFTS

We are all familiar with the tax deductions allowed for cash gifts to charitable organizations. As a public foundation, the Los Angeles County Museum of Natural History Foundation is an eligible recipient of tax-deductible donations. Gifts to our Museum Alliance, the Foundation's membership arm, are equally qualified for a charitable deduction. Most of us remember this fact at least once a year, when we're wrestling with Form 1040.

What we often fail to consider, however, is that a gift of cash may not be our only option. By giving real estate, securities, or certain other types of property, we may realize a dual tax benefit. A gift of long-term appreciated assets is eligible for the charitable deduction at *full current market value*, while totally *avoiding capital gains tax* on the appreciation.

Through personal consultation with you and your attorney or other advisors, the Museum Foundation may help you to take advantage of these and other benefits. Much of the $43 billion which Americans gave to nonprofit, charitable organizations last year was directly stimulated by our government's tax laws. We are not talking about hidden "loopholes," but deductions specifically designed to encourage philanthropy.

BEQUESTS AND TRUSTS

Thanks to the growing sophistication of donors and the charitable organizations they support, there are many new ways to "remember your favorite charity" in your will—and a few that can yield benefits during your lifetime. Here again, the tax laws (both federal and state) provide opportunities to convert a share of your estate which would otherwise go to the government into direct support for the institution or organization of your choice. If you are not thoroughly familiar with these alternatives, it may be wise to pursue them with your attorney. The Museum Foundation can help you and your advisor to select a program to benefit yourself or your heirs.

One such device which is worthy of particular consideration is the Charitable Remainder Trust. This concept has become very popular because of its multiple tax advantages. The donor may realize an immediate income tax deduction, minimize exposure to capital gains tax, provide life income for himself or another person, and reduce estate taxes and probate costs, all as by-products of a long-term gift to a worthy institution. With no risky "gimmicks," any one of several Charitable Remainder Trust plans can build security for yourself, your family and the Natural History Museum.

The premise is simple and straightforward: cash or other assets are transferred to a Trust for the ultimate benefit of the Museum. The Trust Agreement provides for the Museum Foundation to receive the *remainder*, after the Trust's more immediate purpose has been fulfilled. The immediate benefit (or deferred benefit, in the case of certain annuity trusts) is an annual income to the donor or a designated beneficiary for life. Depending upon the particular form of Trust, this income may be either a fixed dollar amount or a specified percentage of the annually-evaluated fair market value.

If you are holding substantially appreciated investments which you cannot afford to sell due to the capital gains tax, you may want to take a close look at the advantages of a Charitable Remainder Trust. There is no capital gains tax when assets are transferred to the Trust, even if the Trust sells them for re-investment. If you have been locked in to low-yield securities, creation of a Charitable Remainder Trust could actually increase your current income while saving taxes and giving you the lasting satisfaction of supporting the Natural History Museum.

There are almost as many methods and models for giving as there are reasons to give — not to mention the tremendous number of organizations seeking donors. Among them all, why choose the Natural History Museum? What makes this institution worthy of support?

If you think of charitable giving as an investment, several advantages come to mind:

1. Permanence. Bequests, trusts and other "deferred" gifts are certain to have a beneficiary; and your support will help provide a cultural legacy for future generations.
2. Flexibility. You may designate your contribution for a specific aspect or program of the Museum, and be assured that it will be used as you have stipulated.
3. Sound Investment Policies. The trustees of the Museum Foundation have an outstanding record of managing investments to realize the maximum potential of each gift.

Perhaps the best reason, however, for supporting the Natural History Museum is the very nature of the institution. Where else can a single gift benefit the natural and cultural environment, promote education and learning, and help to preserve the colorful heritage of American society?

Regardless of age or financial position, we all owe it to ourselves and our families to plan for a secure future. For more information about including the Museum in your personal security plans, please contact the Natural History Museum Foundation at 900 Exposition Boulevard, Los Angeles 90007.

W. Stuart Ritter is executive vice-president, Natural History Museum Foundation.

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MEMBERS TICKET ORDER FORM

This special exhibit was brought together through the efforts of the Natural History Museum and Señora Clara Muñoz de Yust, consul of Colombia, and will be shown nowhere else in North America. Tickets will be available on a first-come-first-served reservation basis only.

Alliance members may order four FREE tickets for the date of their choice and will be sent a FREE catalog. Additional tickets may be ordered at $4.00 each. Members may request their tickets for a special Alliance Preview Evening on July 3rd or for any date during the exhibit, July 4 through September 6 (except Mondays). Tickets will be issued for the first available date and time.

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